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(56) Documents Cited

GB 0430844 A WO 82/03018 A US 4383687 A  
US 4181307 A US 4143877 A

(58) Field of Search

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(54) A golf aid.

(57) A golf aid designed to assist a golfer to keep his head still during a golf swing comprises a plate placeable on the ground. The plate displays an image which disappears, moves, or changes should the head of the player move during the swing. The image can be a hologram or an image created by an interference pattern. In a further embodiment, the plate is formed with a plurality of parallel prismatic ridges and incorporates an image which changes with the angle at which the plate is viewed.

The plate may be provided with an integrally formed hole or a hole through which a tee may pass.

GOLF AID

This invention relates to a golf aid designed to assist golfers keeping the head still when practising golf swings or when playing.

5 It is well recognised that one of the most essential things when playing golf is to keep the head still whilst addressing and striking the ball, and various aids have already been designed to assist players achieving this objective.

This invention relates to a very cheap visual aid which may be  
10 mass produced for this purpose.

Basically the visual golf aid of this invention consists of a flat plate, e.g. of glass or plastics, which may be placed on the ground adjacent to or under a golf ball or an imaginary golf ball, that plate incorporating or displaying an image visible to the player when  
15 addressing or striking the real or imaginary ball, and provided that the head is kept still, but which image disappears, moves or changes, should the player move his or her head during the swing. In practising his or her golf swing the player merely concentrates on that image and aims to keep that image visible at all times throughout the swing and  
20 during the follow through.

In its simplest form the device consists of a plate inscribed with two sets of equispaced parallel lines in spaced apart parallel planes, the one set of parallel lines being at a slight angle relative to the other set so that when viewed from a distance the viewer sees an  
25 interference pattern or moiré effect created by the intersecting parallel sets of lines.

When that plate is placed on the ground adjacent or under a real or imaginary golf ball, that interference pattern will be visible to the player, and provided that the player keeps his head still, that  
30 pattern will remain the same. If he moves his head that pattern will be seen to change.

Preferably the interference pattern is created by two intersecting sets of straight parallel lines, so that the interference pattern created by those intersecting lines is itself a set of parallel  
35 lines. This has the advantage that the plate may be placed on the ground in an orientation such that the parallel lines of the interference pattern are aligned at a particular orientation with

respect to the direction of the swing, e.g. parallel thereto or perpendicular.

5 In a preferred embodiment, the two sets of lines are inscribed on two separate sheets of glass or plastic superimposed one on top of the other to form a laminate. Still more preferably, one of the two plates is preferably so mounted as to be rotatable in its own plane relative to the other. In that way the angle of intersection of the two sets of parallel lines can be adjusted in order to vary the frequency of the lines forming the interference pattern.

10 Depending upon the colours of the plates or the sets of lines, the interference pattern created may be coloured or black and white.

15 In another embodiment, the flat plate has a first, upper surface which is provided with an array of parallel prismatic ridges, whilst the opposite surface, or an underlying plate, is provided with an image or multiple image, which changes when viewed through the prismatic ridges on the upper, depending on the angle at which the plate is viewed. That principle is well established in the art, although, it is thought, not previously employed as a golf aid.

20 When using the latter type of aid, the principle is similar to the former type, e.g. the type providing an interference pattern visible to the player as he or she makes his or her swing. Rather than an interference pattern, with the latter type of device, the player sees one image, and provided that the head is kept still during the swing and follow through that image is constant, but as soon as the head moves that image changes.

25 In the latter type of device, the image may simply be a colour or coloured pattern which changes if the head moves, for example, the device may be designed to provide a uniform green colour which changes to red if the head moves.

30 In the alternative, and to provide a particular form of appeal, the image may be that of a golf ball, for example, which can be made to "disappear" if the head moves.

35 In yet another device according to the invention, the image incorporated into the plate may be a hologram or holographic image which changes depending upon the angle at which the plate is viewed and which will therefore remain unchanged provided the player keeps his or her head still throughout the swing, but which will move or change if

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the head moves.

In further embodiments according to the invention, the device may be designed to be placed under a real golf ball, so that the player sees the actual golf ball sitting on top of the image, which, when the ball is struck, changes or not as the case may be, depending upon whether the player keeps his or her head still as the ball is being struck. For this purpose, the upper surface of the plate may be provided with an integral tee or other recess in which to seat the golf ball on the plate.

In the alternative, the plate may be provided with a central aperture at least large enough to permit the insertion of an ordinary golf peg therethrough into the ground below. Alternatively the aperture may have a diameter large enough to accommodate a golf ball, so that the plate may be placed over a golf ball placed on the ground or supported by a peg.

Other variations will be possible in either type of device without departing from the scope of the invention, i.e. employing the same basic principle.

CLAIMS

1. A golf aid designed to assist golfers keeping the head still when practising golf swings or when playing, the aid comprising a plate  
5 placeable on the ground below or adjacent a real or imaginary golf ball, the plate incorporating or displaying an image visible to the player when addressing or striking the real or imaginary ball, which image disappears, moves or changes should the player move his or her head during the swing.
- 10 2. A golf aid according to claim 1, wherein the image is an interference pattern created by one set of parallel lines on or incorporated into the plate and a second set of parallel lines on or incorporated into the plate in a plane parallel to but spaced from the  
15 plane of the first set, said second set of parallel lines being inclined at a small angle relative to the first set so as to create an interference pattern when the plate is viewed from a distance.
- 20 3. A golf aid according to claim 2, wherein said lines are parallel straight lines, thereby to create an interference pattern itself consisting of parallel straight lines.
- 25 4. A golf aid according to claim 2 or 3, wherein one set of lines is adjustable relative to the other in its own plane, thereby to permit the frequency of the interference pattern created by those two sets of lines to be adjusted.
- 30 5. A golf aid according to claim 1, wherein the plate has a first, upper surface formed with a plurality of parallel prismatic ridges and the plate incorporates an image which changes when viewed through that surface and depending upon the angle at which the plate is viewed.
- 35 6. A golf aid according to claim 1, in which the image incorporated into the plate is a hologram which changes depending upon the angle at which the plate is viewed.
7. A golf aid according to any one of claims 1-6, which is placeable

on the ground under a golf ball and which provides a seat for the golf ball on the upper surface of the plate.

- 5 8. A golf aid according to any one of claims 1-6, which is placeable on the ground under a golf ball and which is provided with an aperture through which a tee peg may be inserted into the ground below to provide a seat for the golf ball approximately at or slightly above the surface of the plate when in position on the ground below the ball.
- 10 9. A golf aid according to any of claims 1-7, which is placeable around a golf ball lying on the ground or on a tee peg, and which plate has an aperture of a diameter sufficient to accommodate the golf ball and enabling the plate to be placed over the golf ball when on the ground or supported by said tee peg.
- 15 10. A golf aid according to any one of claims 6-9, wherein said image is an image of a golf ball which disappears, moves or changes if the player moves his or her head during the swing.

**Examiner's report to the Comptroller under  
Section 17 (The Search Report)**

GB 9217513.2

**Relevant Technical fields**

- (i) UK Cl (Edition L ) A6D D13C
- (ii) Int Cl (Edition 5 ) A63B

**Search Examiner**

PHIL THORPE

**Date of Search**

7 OCTOBER 1993

**Databases (see over)**

- (i) UK Patent Office
- (ii) ONLINE DATABASE: WPI

Documents considered relevant following a search in respect of claims

Category (see over)	Identity of document and relevant passages	Relevant to claim(s)
X	GB 430844 (BERRY) - see page 5 lines 39-57	1
X	WO 82/03018 (MITCHELL) - see whole document	1
X	US 4383687 (WOLFF) - see whole document	1, 7
X	US 4181307 (KRENE) - see items 7, 18	1, 7
X	US 4143877 (JEFFRIES) - see whole document	1

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### **Categories of documents**

**X:** Document indicating lack of novelty or of inventive step.

**Y:** Document indicating lack of inventive step if combined with one or more other documents of the same category.

**A:** Document indicating technological background and/or state of the art.

**P:** Document published on or after the declared priority date but before the filing date of the present application.

**E:** Patent document published on or after, but with priority date earlier than, the filing date of the present application.

**&:** Member of the same patent family, corresponding document.

**Databases:** The UK Patent Office database comprises classified collections of GB, EP, WO and US patent specifications as outlined periodically in the Official Journal (Patents). The on-line databases considered for search are also listed periodically in the Official Journal (Patents).